



Implications of Unnecessary Antibiotic Prescriptions

Overview

The Navy and Marine Corps Public Health Center's (NMCPHC) Health Analysis Department (HA) recently analyzed the rates and implications of unnecessarily prescribing antibiotics for viral respiratory illness. Using their access to the Military Health System (MHS) Data Repository, they analyzed data to identify all instances of Department of Defense (DoD) beneficiaries ages 18 - 64 who were diagnosed with a viral respiratory illness and prescribed an antibiotic for treatment in the calendar year 2012. Pharmacy costs of prescription transactions (including ingredient cost, dispensing fees, and taxes) were calculated for the unnecessary antibiotics, providing an estimate of potential savings. The study identified avertable costs in excess of \$5 million if antibiotic prescriptions for viral respiratory illness are reduced.



Photo by LCpl Timothy L. Solano/released

Key Findings

One in four DoD beneficiaries diagnosed viral respiratory encounters were treated with unnecessary antibiotics in 2012, resulting in \$5.2 million of avoidable costs.

The implications of the study are significant for three reasons:

- Overuse of antibiotics results in increased adaptive bacterial mutation and subsequent widespread resistance to antibiotic treatment
- Antibiotic use for viral respiratory illness is ineffective
- Antibiotic use for viral respiratory illness is unnecessarily costly

Bottom Line

Within Navy Medicine alone, there is the potential to save \$900,000 by avoiding unnecessary antibiotic prescriptions. A decrease in prescriptions will also reduce the impacts of antibiotic resistance, leading to improved quality of care and cost savings.

HA provides expertise and leadership to improve the value of Navy health care and operational force readiness through clinical health analysis, epidemiologic and evidence-based methods. For more information about HA and their clinical data analysis capabilities please visit:

<http://www.med.navy.mil/sites/nmcphc/health-analysis/>. To contact HA or request a copy of the study, please email health-analysis@nmcphc.med.navy.mil.

